



NARNARAYAN SHASTRI INSTITUTE OF TECHNOLOGY

(Department of Computer Science Engineering)

Name: Pradipta Pariyal (Enrollment no: 110340131056)

Contact No. 9099339492

Internal Guide: - Anirudh Dular

External Guide: - Kapil Sharma



Project Title: Design, Implementation and analysis of different fairness algorithm for SMRT services over MSS band

Abstract:- Abnormal events like earthquakes, landslides, volcanic eruptions, floods, hurricanes, tornadoes, blizzards, tsunamis, and cyclones are all natural hazards that kill thousands of people and destroy billions of dollars of habitat and property each year. Infrastructure based land mobile radio (LMR) is being used since years for public safety. Cell phones have been adopted as communication tools by many first responders. However, neither option ensures reliable, interoperable nor sustainable communications in case of infrastructural damage. Satellite Mobile Radio Talk Group Network provides an alternate solution to this problem. It removes the need of any existing ground infrastructure except the Control Centre, by making use of communication satellites in the Geo stationary orbit to communicate with other terminals. Scheduling algorithms focus on the application of analytical methods to facilitate better decision making. My role is to remove the disadvantage of priority scheduling.

- 2) Provide reliable and interoperable communication solution with coverage even in sparsely populated areas not covered by cellular towers.
- 3) Able to establish communication in most rural areas, mountainous regions.

System diagram:

For constructing the simulator i.e. SMRT Control Centre priority scheduling is used. It has disadvantages like indefinite waiting or starvation.

Solutions to them are aging that is to upgrade the priority so that the terminals get a fair chance to execute call request.

Technology: Java

Software used: - Netbeans IDE 7.3

Project Application:- 1) Provide assistance in communication during natural, man-made calamities.

