

Cellular Mobile Telecommunication GSM Radio Base Station Network Planning

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Abstract : The project involves the design and simulation of a Mobile Cellular Telecommunication Network using the software tool CelPlanner. The design is mainly concerned with Global System for Mobile Communications . The design and simulation of the network is done for a small part of the area allocated for us in the terrain area of Shreveport city .The project is concerned with designing a network that is cost effective and which also efficiently meets the required Grade of Service (GOS) AND Quality of Service (QOS).The expected outcome of this project is the design of a network that gives a good coverage for the area allocated to us with minimum co-channel interference and adjacent channel interference. The Handover and Traffic Handling Capacity should also be taken into consideration and should be good for the given area . The Traffic Handling Capacity of the network in a way decides whether the designed network is good or bad . The design also takes into consideration the topographical and morphological information.

Keywords : mobile communication, GSM, radio base station, network planning

Conference Title : ICAMAME 2015 : International Conference on Aerospace, Mechanical, Automotive and Materials Engineering

Conference Location : Istanbul, Türkiye

Conference Dates : April 21-22, 2015