

Mobile System & Cell Design



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Abstract

This project gives a comprehensive knowledge of mobile system and a practical implementation of it, in one place. In our daily life, mobile has become a very necessary part of our life. With the passage of time cellular subscribers increases not only in Pakistan but also whole world. This project tried has exposed the past, present and future of mobile system. It is researched that where the world stands in the field of mobile technologies.

The project has three basic modules.

The first module researches the evolution of mobile system. The most frequently used second generation system GSM is discussed at length and also countries where GSM used, and major operators which provide mobile services. The next generation mobile system 4G is explained as well.

The second module the component, function and structure of a cellular system is explained. Important part of project which is **Cell Design**. The Microcells of the city Khair Pur are design based on GSM technology. Cell design software (TEMS) is used to design the cell and cell designed specific hardware requirements are accordingly mentioned for the network. Cost per user and total network cost are also calculated.

The third module, discusses the architecture of major mobile companies in Pakistan. Last one year growth of cellular subscriber has been increased. Four mobile companies are active and two new companies are coming up. Per year subscribers of these companies are also find out. So Cellular Race is on in Pakistan.