

### **ABSTRACT**

In mobile and wireless communication systems, radio links are able to present cost-effective and good communication solutions in terms of quality and capacity. Radio link design purposes are to have optimum budgets, maximum efficiency for communication parameters. In addition, the reader purpose is seeing my knowledge and investigation studies. In designing process, I used simulations with MATLAB and some statistical informations came from project's supervisor GSM company. As a result, all parameters are determined in trasnmitting side, propagating side and receiving side according to link topology and theory of radio planning. Then, suitable modulation types are chosen by assuming bandwith according to bit rate.