



## Final Year Project Report

CONVERSION OF NETWORK MEDIA FROM ANALOG TO OPTICAL FIBER AT PAKISTAN STEEL  
MILL

By

Ahmed - ur- Rehman	19201	Dept of Telecom Engineering
FurqanHussain	19203	Dept of Telecom Engineering
Talal.M.Quadri	19224	Dept of Telecom Engineering

Supervised by

ENGR. NAEEM JANJUA

**Bahria University (Karachi Campus)**

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### **Abstract**

It is far known and obvious that the importance of optical fibers is at par. The entire process of conversion of analog communication system to digital communication system between two PABXs at Steelmill Pakistan requires the use of optical fibers as the core communication medium. Communication as known to all is a process of sending and receiving messages either it's between two points on land or through transoceanic distances. The project is process involves converting electrical signals from PABX-1 known as Meridian -1 to optical signals (E/O). Contrarily PABX-2 is on the work of doing the opposite, i.e. conversion of optical signals to electrical signals (O/E).

Steel mill exchange is connected to MDF using 40x pairs and MDF (Main Distribution Frame) is connected to SFP (Small factor pluggable) using 2x pairs of copper cables which is connected to ODF by mean of 1x pair of optical fiber which is connected to the main office of NTC in Zulfiqarabad Exchange through which another optical modem is connected to Main distribution frame and to exchange room in Steel town. PABX-1 has optical fiber cable from exchange room to main head office of NTC. Similarly PABX-2 has copper cable from exchange room to main head office of NTC. We are using SFP for the conversion of transmitted PABX-1 optical voice signal into electrical signal for PABX-2 and vice versa.



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