

# **DEVELOPMENT OF MAINTENANCE MANAGEMENT SYSTEM TO ENHANCE RELIABILITY OF FM TRANSMITTING STATION: The case of Magic FM, Dar es Salaam.**

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## **ABSTRACT.**

The development of technology in broadcasting industry and the increase of number of radio station in Tanzania provide a big choice to listeners to choose for radio stations and programs to listen. The factors which a listener needs from radio station are content of the program, duration of the program, host of the program, quality of the FM signals of the radio and the reliability of the radio station. When the other factors are constant, reliability has great impact in development and growth of radio station.

The factors which affect the reliability of the FM transmitting station are increase of number of failures and down time. The reduction of reliability of FM transmitting station affects the quality of FM signals and the proper coverage area of the transmitting FM signals. That brings the increase of operation and maintenance cost, reduction of a number of listeners and reduction of company revenue.

This study, therefore, aimed at developing a maintenance management management system that is thought to enhance reliability of FM transmitting stations. The objectives that guided the study were to identify the causes of failures, to develop a maintenance management model and then the maintenance management system. The methods used to collect data were physical observation, field measurements, interviews and documents review. Through this research the causes of failures of FM transmitting station were identified as power fluctuation(over or under voltage). overheating, presence of dust and low refrigerant. The study also found that there are other factors that affect the reliability of a FM transmitting station. These factors are availability of spare parts, availability of maintenance tools, availability of maintenance personnel and support from management.

The developed maintenance management system from conceptual model provides a systematic way of maintaining and improving the reliability of FM transmitting station by reducing the number of failures and downtime of the station.

**M. Eng, ( Maintenance Management) Dissertation.**