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RELIABILITY ANALYSIS OF A TELECOMMUNICATION NETWORK SYSTEM UNDER ENVIRONMENTAL STRESS

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Abstract

This paper deals with a communication network system. This system consists of switch room, main distribution frame (M.D.F.) and telephone, which are connected, in series. This system can fail completely due to cable failure, long power break and card failure. The system is in partial failure mode due to failure in D.P. and rain. Failure lines are assumed to follow negative exponential distribution while repair time distribution is general. Important characteristics related to the system are obtained using supplementary variable technique and laplace transform techniques. At least that some special cases have been taken.