

On Periodic Maintenance of a Coherent System

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Abstract—*In this paper, we study a system that has periodic maintenance performed at regular intervals. The exact analytical expressions are obtained for some important maintenance performance measures such as mean time between failures, average availability and mean fractional dead time. The CHA algorithm (Chaudhuri et al, IEEE Reliability, 2003) is used to do the relevant calculations. Some s-coherent structures viz., series, parallel, 2-out-of-3:G and a fire-detector system are considered to illustrate the method.*