

ESTIMATING THE FAILURE DENSITY FUNCTION USING THE STRESS-STRENGTH INTERFERENCE MODEL

BY

CIPRIAN NEMEȘ, D. IVAS and FLORIN MUNTEANU

An element fails as soon as the applied stress is at least as much as the strength of the element. Stress and strength are time-varying in many real-life systems but typical statistical models for stress-strength systems are static. In this paper, the stress and strength processes are dynamically modeled as quasi-stationary process. Also because the stress and strength process depends on many number of parameters, hence the time to failure will be modeled like a random variable.