

## Statistical analysis of integrator plus dead-time system using operational matrix

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To increase precision and reliability of automatic control systems, we have to take into account of random factors affecting the control system. Thus, operational matrix technique is used for statistical analysis of integrator plus time delay system with random parameter. Examples with deterministic and stochastic disturbance are considered to demonstrate the validity of the method. Comparison with Monte Carlo method is made to show the computational effectiveness of the method.