

Cross-Entropy Based Probabilistic Analysis of VEGA Launcher Performance

In this paper, a cross entropy based simulation technique is presented for characterising the probability profile of performance of the closed loop Vega launcher model. The paper describes a theoretical development of the technique, develops an algorithm for its use in probability profile generation, and presents the results of the implementation on the Vega model. The results demonstrate the efficacy of the tool, and its benefits in industrial control system analysis.