Simulation-Based Lean Six-Sigma and Design for Six-Sigma, Basem El-Haik, Raid Al-Aomar. Wiley-Interscience, John Wiley & Sons. Inc., 111 River Street, Hoboken, NJ 07030. 2006. ISBN-13: 978-0-471-69490-8;404 pages; Listed $99.95.

This is the latest book written by El-Haik on the Six-Sigma subjects. The Six-Sigma processes using DMIAC, or DFSS processes using ICOV, are required layers of iterated transformation of parameters. These transformations are necessary to characterize and obtain the optimum setting for either the improvement of the process or the design of a new process. To obtain the information that required to facilitate these parameter transformations are both time consuming and costly. That is why the topic attempted to explore in this book is critical.

Basically this book is divided into three parts. The first part is a review of the Lean Six-Sigma, DFSS processes. For the Six-Sigma experts you may skip this section. The second part describes the simulation basic, especially DES (Discrete Event Simulation).
The four chapters in this part provide the information about what is simulation, how to build a simulation model, how to conduct a simulation, and how to interpret the simulation result. For the advanced students of statistics or computer science, this part can serve as a very good review of the simulation. At the last part It provides how a simulation can be applied to the Lean Six-Sigma, DFSS.

This book successfully bridges the two disciplines to improve the Six-Sigma implementations effectiveness. However, the application of the simulation to the Six-Sigma projects is not deferent from any other simulation projects. The key is to know how can you model the Six-Sigma project such that the events described in the computer model is close enough to the real life processes. Otherwise, a simulation is only at the best a vainly exercise and at the worst can produce a false conclusions with mislead decision and results.

This book is strongly recommended to the practitioners of Six-Sigma, quality professional, software implementers and managers.

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