Robust Optimization is a method to improve robustness using low-cost variations of a single, conceptual design. The benefits of Robust Optimization include faster product development cycles; faster launch cycles; fewer manufacturing problems; fewer field problems; lower-cost, higher performing products and processes; and lower warranty costs. All these benefits can be realized if engineering and product development leadership of automotive and manufacturing organizations leverage the power of using Robust Optimization as a competitive weapon.

Written by world renowned authors, *Robust Optimization: World’s Best Practices for Developing Winning Vehicles*, is a groundbreaking book which introduces the technical management strategy of Robust Optimization. The authors discuss what the strategy entails, 8 steps for Robust Optimization and Robust Assessment, and how to lead it in a technical organization with an implementation strategy. Robust Optimization is defined and it is demonstrated how the techniques can be applied to manufacturing organizations, especially those with automotive industry applications, so that Robust Optimization creates the flexibility that minimizes product development cost, reduces product time-to-market, and increases overall productivity.

Key features:

- Presents *best practices* from around the globe on Robust Optimization that can be applied in any manufacturing and automotive organization in the world

- Includes 19 successfully implemented best case studies from automotive original equipment manufacturers and suppliers
• Provides manufacturing industries with proven techniques to become more competitive in the global market

• Provides clarity concerning the common misinterpretations on Robust Optimization

*Robust Optimization: World’s Best Practices for Developing Winning Vehicles* is a must-have book for engineers and managers who are working on design, product, manufacturing, mechanical, electrical, process, quality area; all levels of management especially in product development area, research and development personnel and consultants. It also serves as an excellent reference for students and teachers in engineering.

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**ABOUT THE AUTHOR**

**Subir Chowdhury** has been a thought leader in quality management strategy and methodology for more than 20 years. Currently Chairman and CEO of ASI Consulting Group, LLC, he leads Six Sigma and Quality Leadership implementation, and consulting and training efforts. Subir’s work has earned him numerous awards and recognition. *The New York Times* cited him as a “leading quality expert”; *BusinessWeek* hailed him as the "Quality Prophet." *The Conference Board Review* described him as "an excitable, enthusiastic evangelist for quality."

Subir has worked with many organizations across diverse industries including manufacturing, healthcare, food, and non-profit organizations. His client list includes major global corporations and industrial leaders such as American Axle, Berger Health Systems, Bosch, Caterpillar, Daewoo, Delphi Automotive Systems, Fiat-Chrysler Automotive, Ford, General Motors, Hyundai Motor Company, ITT Industries, Johns Manville, Kaplan Professional, Kia Motors, Leader Dogs for the Blind, Loral Space Systems, Make It Right Foundation, Mark IV Automotive, Procter & Gamble, State of Michigan, Thomson Multimedia, TRW, Volkswagen, Xerox, and more. Under Subir’s leadership, ASI Consulting Group has helped hundreds of clients around the world save billions of dollars in recovered productivity and increased revenues.

Subir is the author of 14 books, including the international bestseller *The Power of Six Sigma* (Dearborn Trade, 2001), which has sold more than a million copies worldwide and been translated into more than 20 languages. *Design for Six Sigma* (Kaplan Professional, 2002) was the first book to popularize the "DFSS" concept. With quality pioneer Dr. Genichi Taguchi, Subir co-authored of two technical bestsellers *Robust Engineering* (McGraw Hill, 1999) and *Taguchi's Quality Engineering Handbook* (Wiley, 2005).

His book, the critically acclaimed *The Ice Cream Maker* (Random House Doubleday, 2005) introduced LEO (Listen, Enrich, Optimize), a flexible management strategy that brings the concept of quality to every member of an organization. The book was formally recognized and distributed to every member of the 109th Congress. The LEO process continues to be implemented in
many organizations. His most recent book, *The Power of LEO* (McGraw-Hill, 2011) was an Inc. Magazine bestseller. A follow-up to *The Ice Cream Maker*, the book shows organizations how the LEO methodology can be integrated into a complete quality management system.

**Shin Taguchi** is Chief Technical Officer (CTO) for ASI Consulting Group, LLC. He is a Master Black Belt in Six Sigma and Design for Six Sigma (DFSS) and was one of the world authorities in developing the DFSS program at ASI-CG, an internationally recognized training and consulting organization, dedicated to improving the competitive position of industries. He is the son of Dr. Genichi Taguchi, developer of new engineering approaches for robust technology that have saved American industry billions of dollars.

Over the last thirty years, Shin has trained more than 60,000 engineers around the world in quality engineering, product/process optimization, and robust design techniques, Mahalanobis-Taguchi System, known as Taguchi Methods TM. Some of the many clients he has helped to make products and processes Robust include: Ford Motor Company, General Motors, Delphi Automotive Systems, Fiat-Chrysler Automotive, ITT, Kodak, Lexmark, Goodyear Tire & Rubber, General Electric, Miller Brewing, The Budd Company, Westinghouse, NASA, Texas Instruments, Xerox, Hyundai Motor Company, TRW and many others. In 1996, Shin developed and started to teach a Taguchi Certification Course. Over 360 people have graduated to date from this ongoing 16-day master certification course.

Shin is a Fellow of the Royal Statistical Society in London, and is a member of the Institute of Industrial Engineering (IIE) and the American Society for Quality (ASQ); Shin is a member of the Quality Control Research Group of the Japanese Standards Association (JSA) and Quality Engineering Society of Japan. He is an editor of the Quality Engineering Forum Technical Journal and was awarded the Craig Award for the best technical paper presented at the annual conference of the ASQ. Shin has been featured in the media through a number of national and international forums, including *Fortune* Magazine and *Actionline* (a publication of AIAG). Shin co-authored " *Robust Engineering*" published by McGraw Hill in 1999. He has given presentations and workshops at numerous conferences, including ASQ, ASME, SME, SAE, and IIE. He is also a Master Black Belt for Design for Six Sigma (DFSS).

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