The Global Manufacturing Revolution

PRODUCT-PROCESS-BUSINESS INTEGRATION AND RECONFIGURABLE SYSTEMS

Yoram Koren
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THE CONCRETE TOOLS
MANUFACTURING ENTERPRISES NEED TO THRIVE IN
TODAY'S GLOBAL ENVIRONMENT

For a manufacturing enterprise to succeed in this current volatile economic environment, a
revolution is needed in restructuring its three main components: product design, manufacturing, and business model. *The Global Manufacturing Revolution* is the first book
to focus on these issues. Based on the author's long-standing course work at the University
of Michigan, this unique volume proposes new technologies and new business strategies
that can increase an enterprise's speed of responsiveness to volatile markets, as well as
enhance the integration of its own engineering and business.

Introduced here are innovations to the entire manufacturing culture:

- An original approach to the analysis of manufacturing paradigms
- Suggested methods for developing creativity in product design
- A quantitative analysis of manufacturing system configurations
- A new manufacturing "reconfigurable" paradigm, in which the speed of
  responsiveness is the prime business goal
- An original approach to using information technology for workforce
  empowerment

The book also offers analysis and original models of previous manufacturing paradigms’
technical and business dimensions—including mass production and mass customization—in
order to fully explain the current revolution in global manufacturing enterprises. In addition,
200 original illustrations and pictures help to clarify the topics.

Globalization is creating both opportunities and challenges for companies that manufacture
durable goods. The tools, theories, and case studies in this volume will be invaluable to
engineers pursuing leadership careers in the manufacturing industry, as well as to leaders of
global enterprises and business students who are motivated to lead manufacturing enterprises
and ensure their growth.

**YORAM KOREN** is a member of the National Academy of Engineering and the Paul G. Goebel
Professor of Engineering in the Department of Mechanical Engineering at the University of
Michigan, as well as the Director of the NSF Engineering Research Center for Reconfigurable
Manufacturing Systems. He has won many awards, including, most recently, the Stephen S.
Attwood Award from the University of Michigan College of Engineering, 2008, and the Gold