Deji Chen
Mark Nixon
Aloysius Mok

WirelessHART™

Real-Time Mesh Network for Industrial Automation

Springer

WirelessHART™

Deji Chen • Mark Nixon
Aloysius Mok

WirelessHART™

Real-Time Mesh Network for Industrial Automation

Springer

Deji Chen
Emerson Process Management
12301 Research Blvd.
Research Park Plaza, Bldg. III
Austin, TX 78759
USA
deji.chen@emerson.com

Mark Nixon
Emerson Process Management
12301 Research Blvd.
Research Park Plaza, Bldg. III
Austin, TX 78759
USA
mark.nixon@emerson.com

Aloysius Mok
Department of Computer Sciences
The University of Texas at Austin
Austin, TX 78712
USA
mok@cs.utexas.edu

ISBN 978-1-4419-6046-7 e-ISBN 978-1-4419-6047-4
DOI 10.1007/978-1-4419-6047-4
Springer New York Dordrecht Heidelberg London

Library of Congress Control Number: 2010925230

To my father Zhengcai Chen, my mother Jiangen Wang, my wife Qing Li, and my newborn daughter Daphne Chen.

Deji Chen

To Joshua and Jordan.

Mark Nixon

To my family especially my wife Amy who has been a great companion in life's adventures.

Aloysius Mok

Acknowledgements

We would like to thank the following persons without whom this book will not be possible. First we thank Jose Gutierrez, Ron Helson, and Quan Wang for their encouragement for starting the book. We owe a special gratitude to Wally Pratt, the chief engineer at the HCF, and the members of the specification team consisting of Eric Rotvold, Robin Pramanik, and Tomas Lennvall. Without all of your hard work this book would not have been possible. We also thank Veena Gondhalekar, Jianping Song, Song Han, Xiuming Zhu, Terry Blevins, Willy Wojsznis, and Greg McMillan for cooperating with us on the WirelessHART related research and development effort which provided the material for this book. Song Han and Xiuming also provided valuable feedback to the initial draft of the book. We thank Kelly Orth for important input to the book. We thank Mike Sheldon for much needed advices. And finally, we thank Susan Lagerstrom-Fife and Jennifer Maurer for their understanding in working with us closely to bring this book to reality.

Table of Contents

Table of Figures

List of Tables