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# IS-95 CDMA AND cdma2000 Cellular/PCS Systems Implementation · Vijay K. Garg

### The Next Generation: Wireless Communications for Multimedia and Beyond

Of all wireless technologies for personal communications, Code Division Multiple Access (CDMA) offers the best combination of good signal quality, high security, low power consumption, and excellent system reliability. Features added in the IS-95 standard mean this impressive list now also includes Third Generation (3G) data capabilities that will allow CDMA providers to offer Internet and intranet services for multimedia applications, high-speed business transactions, and telemetry. The upcoming cdma2000 standard will further expand usable bandwidth without sacrificing voice quality or requiring additional spectrum.

In this book, Vijay K. Garg, an experienced telecommunications authority, will teach you how to maximize the power of CDMA, migrate existing systems to the newest standards, and prepare for a smooth transition to features yet to come. *IS-95 CDMA and cdma2000: Cellular/PCS Systems Implementation* covers all aspects of up-to-date CDMA implementation and operation, including:

- CODING AND ARCHITECTURE
- RADIO INTERFACE AND CALL FLOW
- PHYSICAL, DATA LINK, AND SIGNALING LAYERS
- HANDOFF AND POWER CONTROL
- **System security**
- WIRELESS DATA
- REVERSE AND FORWARD LINK CAPACITY
- RF ENGINEERING AND NETWORK PLANNING
- Evolution to Third Generation systems

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Practicing engineers and their managers will benefit from the in-depth coverage of IS-95 systems, RF engineering, and capacity planning. Students will appreciate the look at the future of the industry where they are preparing for careers. *IS-95 CDMA and cdma2000: Cellular/PCS Systems Implementation* offers both practical applications information and conveniently organized reference materials for anyone interested in the next generation of wireless telecommunications.

### About the Author

Vijay Garg is an internationally known expert on wireless communications technologies and is an author of numerous books published by Prentice Hall PTR, including *Wireless and Personal Communications Systems* and *Principles and Applications of GSM* with Joe Wilkes, and *Applications of CDMA in Wireless Communications* with Ken Smolik and Joe Wilkes. Dr. Garg is a Fellow of the American Society of Mechanical Engineers (ASME) and American Society of Civil Engineers (ASCE). He is a senior member of IEEE and a feature editor for *IEEE Communications Magazine* PCS Series.



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### IS-95 CDMA and cdma2000

### Cellular/PCS Systems Implementation

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