DESCRIPTION

A practical guide to the specification, design, and programming of smart card systems for working applications.

More than 3 billion smartcards are produced every year. Generally defined as any pocket-sized card with embedded integrated circuits or chips, they have a huge number of applications including travel cards, chip and pin cards, pet tags, mobile phone SIMs and pallet trackers. Now with modern Smart Card technology such as Java Card and Basic Card it is possible for everyone to create his or her own applications on a smart card.

This book provides generic solutions for programming smart cards, enabling the creation of working applications and systems.

Key features:

• Presents a comprehensive introduction to the topic of smart cards, explaining component elements and the smart card microcontrollers.

• Sets out information on operating systems with case studies of a range of applications including credit card security, mobile phones and transport payment cards.

• Gives detailed advice on the monitoring of smart card applications, recognizing potential attacks on security and improving system integrity.

• Provides modules and examples so that all types of systems can be built up from a small number of individual components.
• Offers guidelines on avoiding and overcoming design errors.

Ideal for practising engineers and designers looking to implement smart cards in their business, it is also a valuable reference for postgraduate students taking courses on embedded system and smart card design.

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About the Author

Wolfgang Rankl is currently Head of Telecom and Research and Development at Giesecke & Devrient, Germany. He is an experienced author, having written three editions of the book *Smart Card Handbook* for Wiley (3rd Edition published 2003), and the German version of this book for Hanser *Chipkarten Anwendungen: Entwurfsmuster für Einsatz und Programmierung con Chipkarten* which is due to publish in March this year. He has been dedicated to the development and research of smart card systems since 1990.

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