DESCRIPTION

Explore the potential of mobile P2P networks

*Mobile Peer to Peer (P2P): A Tutorial Guide* discusses the potential of wireless communication among mobile devices forming mobile peer to peer networks. This book provides the basic programming skills required to set up wireless communication links between mobile devices, offering a guide to the development process of mobile peer to peer networks.

Divided into three sections, Part I briefly introduces the basics of wireless technologies, mobile architectures, and communication protocols. Detailed descriptions of Bluetooth, IEEE802.11, and cellular communication link are given and applied to potential communication architectures. Part II focuses on programming for individual wireless technologies, and gives an understanding of the programming environment for individual wireless technologies. In addition, Part III provides advanced examples for mobile peer to peer networks.

- Introduces the basics of short-range/wireless technologies (such as Bluetooth and IEEE 802.11 Wireless LAN), mobile architectures, and communication protocols
- Explains the basic programming environment and the basic wireless communication technologies such as Bluetooth, WiFi (IEEE802.11), and cellular communication examples
- Discusses the advancements in meshed networks, mobile social networks and cooperative networks
• Provides detailed examples of mobile peer to peer communication including, social mobile networking, cooperative wireless networking, network coding, and mobile gaming

• Includes an accompanying website containing programming examples as source code

Mobile Peer to Peer (P2P): A Tutorial Guide is an invaluable reference for advanced students on wireless/mobile communications courses, and researchers in various areas of mobile communications (mashups, social mobile networks, network coding, etc.) Undergraduate students and practitioners wishing to learn how to build mobile peer to peer networks will also find this book of interest.

ABOUT THE AUTHOR

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Frank H. P. Fitzek is an Associate Professor in the Department of Communication Technology at the University of Aalborg, Denmark heading the Future Vision and Mobile Device group. He received his diploma (Dipl.-Ing.) degree in electrical engineering from the University of Technology - Rheinisch-Westfälische Technische Hochschule (RWTH) - Aachen, Germany, in 1997 and his Ph.D. (Dr.-Ing.) in Electrical Engineering from the Technical University Berlin, Germany in 2002 for quality of service support in wireless CDMA networks. As a visiting student at the Arizona State University he conducted research in the field of video services over wireless networks, and in 1999 co-founded the start-up company acticom GmbH in Berlin. In 2002 he was Adjunct Professor at the University of Ferrara, Italy giving lectures on wireless communications and conducting research on multi-hop networks. Frank's current areas of research interest are in wireless and mobile communication networks, mobile phone programming, cross layer as well as energy efficient protocol design and cooperative networking.

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