

Contents

Introduction to D2D Communication	1
Shahid Mumtaz and Jonathan Rodriguez	
LTE-A Access, Core, and Protocol Architecture for D2D Communication	23
Dimitris Tsolkas, Eirini Liotou, Nikos Passas and Lazaros Merakos	
Node/Peer Discovery, Mode Selection, and Signaling for D2D Communication in LTE-A Band	41
Lei Lei and Yiru Kuang	
Interference Management in D2D Communication	89
Daesik Hong and Seokjung Kim	
Establishment and Maintenance of D2D Communication	113
Shaoyi Xu	
Network Assisted Device-to-Device Communications: Use Cases, Design Approaches, and Performance Aspects	135
Gabor Fodor, Stefano Sorrentino and Shabnam Sultana	
Network-Assisted D2D Over WiFi Direct	165
Alexander Pyattaev, Olga Galinina, Kerstin Johnsson, Adam Surak, Roman Florea, Sergey Andreev and Yevgeni Koucheryavy	
Device-to-Device Communication in Heterogeneous Networks	219
Yusuf A. Sambo, Muhammad Z. Shakir, Fabien Héliot, Muhammad A. Imran, Shahid Mumtaz and Khalid A. Qaraqe	

D2D-Based Mobile Clouds for Energy- and Spectral-Efficient Content Distribution	237
Hamidreza Bagheri, Marcos Katz, Frank H. P. Fitzek, Daniel E. Lucani and Morten V. Pedersen	
Interdependency Between Mobile and Electricity Distribution Networks: Outlook and Prospects	281
S. Horsmanheimo, N. Maskey and L. Tuomimäki	

Smart Device to Smart Device Communication

Mumtaz, S.; Rodriguez, J. (Eds.)

2014, XII, 308 p. 137 illus., 127 illus. in color.,

Hardcover

ISBN: 978-3-319-04962-5