

1. Record Nr.	UNINA9911006730203321
Autore	Imoize Agbotiname Lucky
Titolo	Advanced Metaverse Wireless Communication Systems
Pubbl/distr/stampa	Stevenage : , : Institution of Engineering & Technology, , 2025 ©2025
ISBN	1-83724-388-3 1-83953-908-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (581 pages)
Collana	Telecommunications Series
Altri autori (Persone)	MontlouisWebert SongHoubing Herbert
Disciplina	621.384
Soggetti	Wireless communication systems 6G mobile communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Contents -- Preface -- About the editors -- 1. Advanced wireless communication techniques and the metaverse Webert Montlouis, Ashish Goswami and Agbotiname Lucky Imoize -- 2. Key enablers of metaverse wireless communication Webert Montlouis, Ashish Goswami and Agbotiname Lucky Imoize -- 3. Enhancing machine learning accuracy in the metaverse: overcoming noise and error in object counting systems Yuichi Sei, Keiichiro Oishi, Yasuyuki Tahara, Akihiko Ohsuga and Agbotiname Lucky Imoize -- 4. Communication-control co-design for closed-loop metaverse Qinqin Xiong, Jiaying Zhou, Jie Cao, Xu Zhu and Zeping Sui -- 5. Location-based real-time utilization of reconfigurable intelligent surfaces for mmWave integrated communication and sensing in full-immersive multiuser Metaverse scenarios Filip Lemic, Jalal Jalali, Gerard Calvo Bartra, Alejandro Amat, Jakob Struye, Jeroen Famaey and Xavier Costa Perez -- 6. Preamble parallelization-based random access management for heterogeneous IoT system in metaverse Ziming Guo, Xu Zhu, Jie Cao, Dazhuo Wang and Agbotiname Lucky Imoize -- 7. Scalable metaverse-based wireless ecosystem: networked economic valuations Roberto Moro-Visconti -- 8. Toward a secure metaverse: crafting cutting-edge algorithm for protected data analysis Keiichiro Oishi, Yasuyuki Tahara, Akihiko

Ohsuga, J. Andrew, Agbotiname Lucky Imoize and Yuichi Sei -- 9. Exploring zero-knowledge proofs in the metaverse: applications and challenges | Oleksandr Kuznetsov, Alex Rusnak, Anton Yezhov, Kateryna Kuznetsova, Dzianis Kanonik and Oleksandr Domin -- 10. Blockchain applications in metaverse environments: new horizons | Oleksandr Kuznetsov, Emanuele Frontoni, Kateryna Kuznetsova, Oleksii Smirnov and Victoria Kostenko -- 11. Blockchain-based security and privacy solutions for metaverse-assisted wireless communication systems | Elsir Ali Saad Mohamed and Agbotiname Lucky Imoize -- 12. Federated learning for the metaverse: leveraging artificial intelligence for enhanced data privacy and efficiency | Zhihao Dong, Jie Cao, Xu Zhu, HaiYong Zeng and Agbotiname Lucky Imoize -- 13. Advancing metaverse security with cryptographic innovations | Oleksandr Kuznetsov, Emanuele Frontoni, Vladyslav Chevardin, Oleksii Smirnov and Agbotiname Lucky Imoize -- 14. Cryptography in the metaverse: advanced protocols for secure communication | Oleksandr Kuznetsov, Emanuele Frontoni, Volodymyr Zvieriev, Olha Bulhakova and Vladyslav Riabovolenko -- 15. Differentially private human interactions for the real world and the metaverse | Yuichi Sei, Keiichiro Oishi, Yasuyuki Tahara, Akihiko Ohsuga and Agbotiname Lucky Imoize -- 16. Transforming ageing in the metaverse: embracing virtual communities for enhanced well-being and empowerment | Andreas Andreou, Constandinos X. Mavromoustakis, Houbing Herbert Song, German Peinado Gomez and Jordi Mongay Batalla -- 17. Wireless tools for neuromarketing and neuromanagement in the metaverse | Antonio Gonzalez-Morales, Ma Milagro Martin Lopez and Alejandro Talaminos-Barroso -- 18. Legal perspectives of the International Scientific Sandbox Metaverse: technologies and foresights for digital transformation | V. Kostenko Oleksii, A. Volkova Yuliia, P. Ustynova Iryna, O. Shapenko Liudmyla and V. Usenko Yana -- 19. Societal impacts of advanced metaverse wireless communication systems | Mikail Batu, Onur Tos and Agbotiname Lucky Imoize -- 20. Advanced metaverse wireless communications: future perspectives and research directions | Agbotiname Lucky Imoize, Emmanuel Alozie, Nasir Faruk, Weibert Montlouis and Houbing Herbert Song -- Index

Sommario/riassunto

A comprehensive overview of advanced metaverse wireless communication systems including theoretical analysis, technology enablers, novel system architecture design, new implementation methodologies, emerging application scenarios, experimental frameworks, as well as reliability, security, and privacy.
