1. Record Nr. UNINA9910299664603321

Titolo	Novel 3D Media Technologies / / edited by Ahmet Kondoz, Tasos Dagiuklas
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2015
ISBN	1-4939-2026-X
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (254 p.)
Disciplina	004.24 004.6 006.6 620
Soggetti	Signal processing Image processing Speech processing systems Lasers Photonics Computer communication systems Computer graphics Computer system failures Signal, Image and Speech Processing Optics, Lasers, Photonics, Optical Devices Computer Communication Networks Computer Graphics System Performance and Evaluation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Novel approaches to Immersive Media: from enlarged field-of-view to multi-sensorial experiences -- 3D Video Representation and Coding -- Full Parallax 3D Video Content Compression -- 3D Holoscopic Video Representation and Coding Technology -- Visual Attention Modelling in a 3D Context -- Dynamic cloud resource migration for efficient 3D video processing in mobile

computing environments -- Cooperative Strategies for End-to-End Energy Saving and QoS Control -- Real-Time 3D QoE Evaluation of Novel 3D Media -- Visual discomfort in 3DTV: Definitions, causes, measurement, and modeling -- 3D Sound Reproduction by Wave Field Synthesis -- Utilizing social interaction information for efficient 3D immersive overlay communications.

Sommario/riassunto

This book describes recent innovations in 3D media and technologies, with coverage of 3D media capturing, processing, encoding, and adaptation, networking aspects for 3D Media, and quality of user experience (QoE). The contributions are based on the results of the FP7 European Project ROMEO, which focuses on new methods for the compression and delivery of 3D multi-view video and spatial audio, as well as the optimization of networking and compression jointly across the future Internet. The delivery of 3D media to individual users remains a highly challenging problem due to the large amount of data involved, diverse network characteristics and user terminal requirements, as well as the user's context such as their preferences and location. As the number of visual views increases, current systems will struggle to meet the demanding requirements in terms of delivery of consistent video quality to fixed and mobile users. ROMEO will present hybrid networking solutions that combine the DVB-T2 and DVB-NGH broadcast access network technologies together with a QoE aware Peer-to-Peer (P2P) distribution system that operates over wired and wireless links. Live streaming 3D media needs to be received by collaborating users at the same time or with imperceptible delay to enable them to watch together while exchanging comments as if they were all in the same location. This book is the second of a series of three annual volumes devoted to the latest results of the FP7 European Project ROMEO. The present volume provides state-of-the-art information on immersive media, 3D multi-view video, spatial audio, cloud-based media, networking protocols for 3D media, P2P 3D media streaming, and 3D Media delivery across heterogeneous wireless networks among other topics. Graduate students and professionals in electrical engineering and computer science with an interest in 3D Future Internet Media will find this volume to be essential reading. Describes the latest innovations in 3D technologies and Future Internet Media Focuses on research to facilitate application scenarios such as social TV and high-quality, real-time collaboration Discusses QoE for 3D Represents the last of a series of three volumes devoted to contributions from FP7 projects in the area of 3D and networked media.