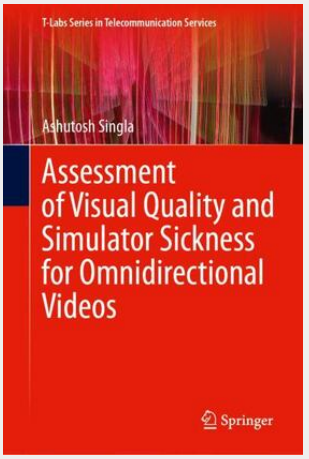
Singla

Assessment of Visual Quality and Simulator Sickness for Omnidirectional Videos



This book presents extensive research on the quality of 360° video perceived by users with HMDs. The book aims to develop a set of standard guidelines for the systematic visual quality assessment of 360° videos. Firstly, conventional subjective test methods such as Absolute Category Rating (ACR) and Double Stimulus Impairment Scale (DSIS) are applied to evaluate video quality, alongside the Modified ACR (M-ACR) method newly proposed. Building on the reliability and general applicability of the procedure across different tests, a methodological framework for 360° video quality assessment is then presented. The author also analyzes simulator sickness to investigate the impact of different influencing factors. The insights gained on simulator sickness related to 360° video contribute to a better understanding of this particular use case of VR and can help to improve comfort among users by suggesting improvements in the technical specifications of 360° video and HMD technology and thusimproving QoE.

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