

HAND GESTURE INTERACTION

in Extended Reality Applications

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Editors
AJUNE WANIS ISMAIL
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PREFACE

Hand Gesture Interactions in Extended Reality Applications begin by establishing the fundamental concepts, tracing the technical aspects of gesture interaction, and defining what constitutes natural hand gestures in extended reality (XR). It then navigates through the spectrum of XR technologies, from virtual reality (VR) to augmented reality (AR) and mixed reality (MR), providing insights into how hand gestures are integrated into each. Best practices for designing intuitive and effective hand gesture-based interactions in XR applications include learning and training, gaming, and cultural heritage.

At its core, *Hand Gesture Interactions in Extended Reality Applications* is the culmination of extensive research produced by UTMViCubeLab. This research group has pooled their knowledge, expertise, and findings to provide comprehensive, insightful, and unique verdicts to AR and VR practices. The strength of this book lies in its foundation of real-hand gesture interactions, combined with emerging technology and XR applications, making it a unique and invaluable resource. This book comprehensively exposes the potential that unfolds when we use our bare hands to interact with XR environments. This book is for students, engineers, developers, trainers, researchers, academic professionals, and scholars in computer science, human-computer interaction, AR, and VR.

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