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AR@Campus: Augmented Reality (AR) for Indoor Positioning and Navigation Apps

Abstract

The integration of Augmented Reality (AR) technology in indoor navigation has transformed spatial awareness and user interaction. This research focuses on "AR@Campus," an AR app designed for campus navigation, aligned with Industry 4.0 principles. It leverages AR to enhance human perception and dynamic digital interaction. The primary goal is to provide an intuitive campus navigation experience using IndoorAtlas positioning technology. Key features include overlaying virtual elements like paths and landmarks onto real-world views, improving spatial understanding. The study covers software development, interface design, and user evaluation, utilizing the IndoorAtlas SDK and Android Studio for precise positioning. The user interface prioritizes ease of use and personalized experiences. User testing is integral, confirming the app's effectiveness, praised for its user-friendly interface and spatial awareness enhancements. AR@Campus represents a significant step forward in campus navigation, benefiting users by seamlessly integrating AR technology into their daily experiences.