

## Arboretum: Community Mixed Reality Nature Environment

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**Abstract :** The connection to the primal environment, living and growing nature is disappearing for most of the residents in urban core areas nowadays. Most of the residents perceive scattered green mass like more technical objects than sentient living organisms. The Arboretum is a type of application from the 'serious games' genre -it is a research experiment masked as a gaming environment. In used virtual and augmented reality environments, every city district is represented by central objects; Pillars created as a result of resident's consensus. Every player can furthermore plant and grow virtual organic seeds everywhere he wants. Seeds sprout, and their form is determined by both players' choice and nearest pillar. Every house, private rooms, and even workspace get their new living virtual avatar-connected 'residents' growing from player-planted seeds. Every room or workspace is transformed into (calming) nature scene, reflecting in some way both players and community spirit and together create a vicinity environment. The conceptual design phase of the project is crucial and allows for the identification of the fundamental problems through abstraction. The project that centers on wide community usage needs a clear and accessible interface. Simultaneously the conceptual design allows early sharing of project ideas and creating public concern. The paper discusses the current conceptual model of an Arboretum project (which is part of a whole widespread project) and its validation.

**Keywords :** augmented reality, conceptual design, mixed reality, social engineering

**Conference Title :** ICCAIDCD 2021 : International Conference on Computer-Aided Industrial Design and Conceptual Design

**Conference Location :** Bali, Indonesia

**Conference Dates :** July 15-16, 2021