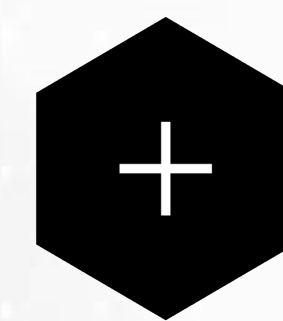


MINDSPACES: Art-driven adaptive outdoors and indoors design

S+T+ARTS LIGHTHOUSE MINDSPACES



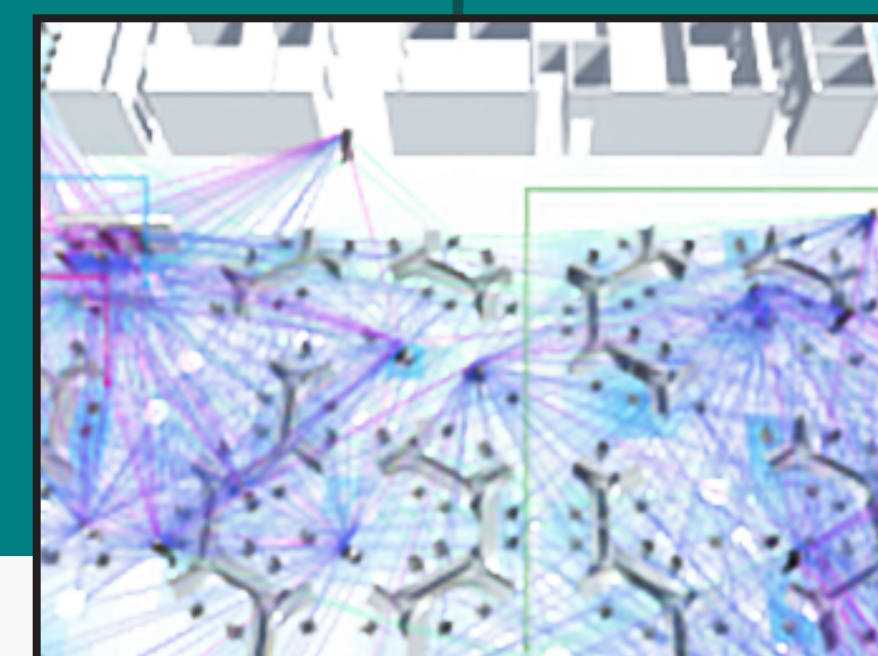
The central objective of MINDSPACES is to create the tools and develop the solutions for adaptive and inclusive spaces that dynamically adapt to emotional, aesthetical and societal responses of end users, creating functionally and emotionally appealing architectural design.

Use Cases

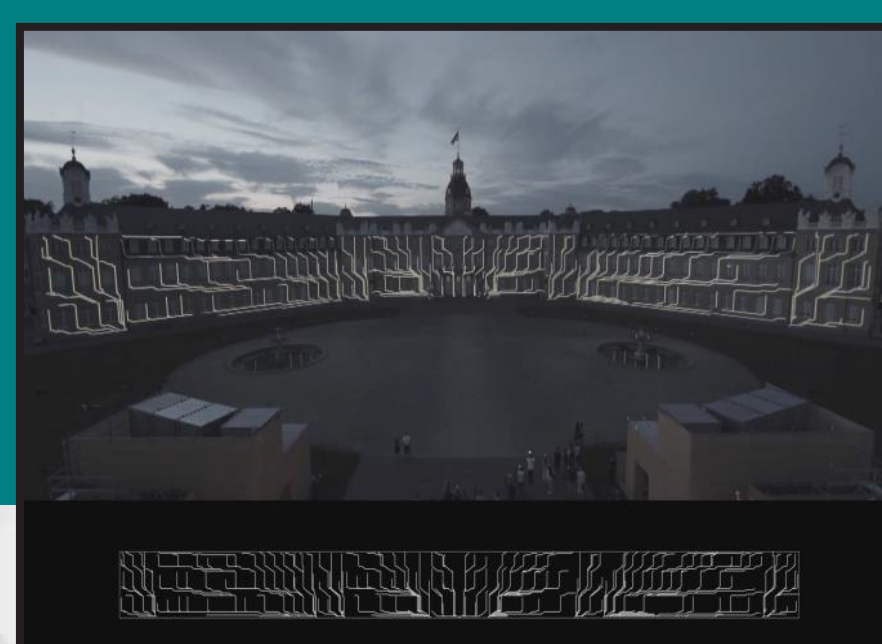
Interior design



Inspiring Workplaces



Outdoors Urban Environment



Motivation

Modern day urban and interior design addresses an ever-changing set of needs that arise in expanding cities, in workplaces and homes requiring new functionalities and emotionally-relevant aesthetics.

Art-related technical impacts

include innovative techniques for the creation of artistic installations developed by the creatives in MindSpaces, by integrating the multisensory neuro-feedback and by working with new materials and technological developments in the realms of Augmented and Virtual Reality (AR/VR), 3D reconstruction, lighting, materials.

Project Website
www.mindspaces.eu



Project Coordinator

Stefanos Vrochidis (Project Coordinator)
Tel. +30 2311 257 754
Email: stefanos@iti.gr

Research Objectives

- Development of State of the Art approaches for the analysis of EEG and physiological signal analysis for emotion recognition and behavior in the MindSpaces AR and VR immersive environments.
- Development of adaptive 3D environments by measuring level of activity and interaction in them through visual analysis of end users' trajectories and actions.
- Online adaptation of 3D environments based on responses of users of the MindSpaces immersive Augmented and Virtual Reality (AR/VR) environments.
- Implementation of novel methods for 3D reconstruction of outdoors and indoors environments
- Semantic integration of multimodal sensor measurements for assessment of emotional, cognitive state.

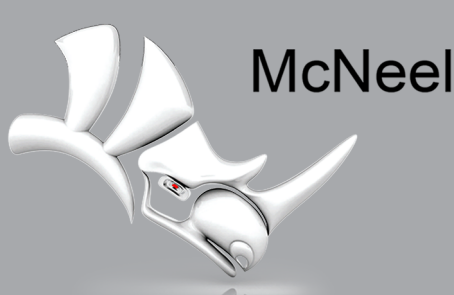
Scientific & Technical Impact

- MINDSPACES will deliver an innovative solution for neuro-architecture, which will be integrated into existing design systems and software products that architects (i.e. Rhino-3D) and VR (i.e. NURO engine) designers are accustomed to.
- New methods for efficient extraction and categorization of digital art content.
- New methods for the development of dynamically adaptive 3D-environments

Consortium



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Ajuntament de L'Hospitalet

