



CELSA - Collaborative research project - Application form - COVER PAGE

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3. Identification of third and fourth co-investigator(s) (if applicable)	
Expand table if more than four research units are involved.	
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¹ Faxed signatures will be accepted.

3. Non confidential and public friendly summary (max. 2000 characters)

Project title: Purposefully Controlling Mediated Architecture

Summary: Recent research in Evidence-Based Design demonstrates how architecture can positively influence human behavior, with potential application areas in human health, comfort or wellbeing. However, this understanding is still based on the notion of space that is designed, built, outfitted and used as a static and passive shell, unaware of the human activities it facilitates. We believe new opportunities exists for a 'mediated architecture' that is able to dynamically and proactively alter specific spatial features according to actual human needs, or in turn, intends to steer human behavior by responding or interacting out of itself. The aim of this research is therefore to investigate how such mediated architecture can allow humans to interact with and through space, so that the resulting spatial experience can be used in purposefully motivated ways. It will develop a life-size interactive environment of believable architectural qualities (e.g. lighting, reflections, texture) that can dynamically adapt and orchestrate an architectural layout, in order to empirically evaluate and describe the impact thereof. The predictive knowledge acquired in this research will afford architects to use temporality as a new design parameter, able to affect the functionality, expression and experience of architecture.

4. List 5 key words

interactive architecture
human-computer interaction
responsive environment
emerging technologies
human-robot interaction