



## The 4<sup>th</sup> International Conference of Faculty of Applied Arts

### Research title:

## **Fluid Interior architecture and creative thinking strategies through the digital revolution**

### Conference Theme: Design Innovation

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- The research is a part of thesis submitted for the degree of masters with title " Liquid Interior architecture as one of the outputs of information revolution "Under the supervision of : Prof. / Ahmed FouadHassan &Dr/ MaiAbd El-Hameed Abd El-Malek Ali

### **Research Abstract :**

This research deals with the most important and recent transformations in design field with the entry of electronic media and new technologies. That is considered as one of the features this era, which provides us with design variations that have helped in creativity which in turn has an impact on the form and the function and gives enormous possibilities that brought a change in designing and performing process at all levels.

Fluid architecture is considered as a new trend and direction of design as one of the results of fusion of architecture with technology, that many of the architectural pioneers used it as ZahaHadid•Frank Gehry and Santiago Calatrava.This trend uses the new technologies and their applications in the field of design, where it depends on metaphorand spatial metaphor from real perceptible architecture as it appeared initially

as a virtual space having different features and characteristics, and has been implemented with the help of digital technologies of design and application.

The research also talked about the different components of technological systems and how to apply communication systems and virtual reality technologies in designing and performing the fluid designs. The study also covered the creative thinking strategies by using computers in designing process by using coding, Algorithms and visual scripting in generating shapes, and how the design is developed in terms of creation and innovation. In the addition of using different software programs such as (Grasshopper & Rhinoceros, Autodesk 3Ds Max, Wolfram Mathematica). And how to activate these tools in developing different interior designs characterized by fluidity having unexpected engineering inspired by nature and free from the traditional design and construction restrictions.

The Study also covered the practical performing side for this designing trend in terms of using digital fabrication techniques as unless their existence we wouldn't be able to reach these creative designs on real also it shows different architectural and interior examples and furniture units designed depending on the fluidity principle. Finally it ends with the main important results and recommendations for the research.

- **Key words :**

Fluid / Liquid architecture – Digital revolution – Virtual reality – Digital fabrication

This paper is mostly focused on procedural aspects