



جامعة الإسكندرية  
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شعبة العمارة الداخلية  
الدراسات العليا

رؤية معاصرة لتكنولوجيا الخامات المتقدمة في تشطيبات العمارة الداخلية المتكاملة  
A Contemporary Vision Of Advanced Materials Technology In  
Integrated Interior Finishes

رسالة علمية مقدمة إلى قسم الديكور - كلية الفنون الجميلة - جامعة الإسكندرية  
ضمن متطلبات الحصول على درجة الماجستير في الفنون الجميلة  
تخصص العمارة الداخلية

مقدمة من الدارس

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These papers mainly concerned about the implementation of new digital technologies and advanced techniques in designing with materials and fabrication processes which can be applied in interior design considerations and finishing techniques process to enhance creativity through its applications in interior architecture that is considered as one of the new trends in design.

Advanced materials 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 Zaha Hadid, Frank Gehry and Santiago Calatrava. This trend uses the new technologies and their applications in the field of design, where it depends on metaphor and 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 first chapter talks about the specifications of materials in interior design as well as the perception of humans according to their senses, it also discussed the materials considerations and interior building codes and its importance to the interior design.

Furthermore, it discuss the nano materials and it's applications in design and architecture; as also it discuss the potential benefits of using this newborn technology in design and architecture; the paper also discussed the new products and properties of advanced materials moreover, having examples for these properties.

The study also discussed the different aspects of Smart technological systems in designing. It has design variations that has an impact on the form and the function of furniture, and can make it more. The paper also covered the creative thinking strategies by applying smart materials in design as well as give key elements, for opening new ways for researching and developing in this field.

In addition to the importance of sustainability and recycling from nature and how to apply The LEED materials strategies through buildings and the new WELL concepts in design for human health.

The study discussed also the futuristic approaches used in materials generated from the fourth industrial revolution that made new innovation in cyber-physical making as also it introduced the 4D printing technology and self-assembling and programmable materials and it's response to environmental and artificial conditions.

The Last Chapter discussed the fabrication methodology from materials point of view and the robotic fabrication in design and architecture in generating and producing complex forms.