

## **Wingsuit Design Technology in the Framework of Functional Requirements**

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### **Abstract**

As always, everything in our lives is subject to change and rapid development. If I told you that you can fly in the air as you wish like a bird, you would not believe me, but it is the truth. With scientific research and technological applications, a trained person can now do that with a risk ratio, that's why this sport is classified under what it is called extreme sports, but what we are working on now is laying the scientific foundations and using modern technological applications and advanced textiles that put the wingsuit in another level of safety and ease of use; Do you worry about flying squirrel from falling!!

This research deals with all aspects involved in designing the wingsuit in terms starting from the physical technique of flying the suit, which is based on aerodynamics; And theories responsible for flying aircraft and its gliding, to the various functional designs of the suit and the textiles used in manufacture. The research also includes aspects of technology used in testing and manufacturing.

Accordingly, it is considered the cornerstone in Egypt and the Middle East for such functional clothing that can contribute creating a boom in the sport and military field, also it paves the way for researchers to enter this area, which rarely finds anyone who offers to work on it because it contains many specialized scientific branches that must be merged to produce this product "wingsuit".

### **Keywords:**

Wingsuit, Aerodynamic, Technology, Function, Textile