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**OPTIMIZATION OF MATHEMATICAL MODEL  
OF THE IMPACT FACTORS HIERARCHY OF THE INTERFACE USE BASED  
ON MOBILE APPLICATIONS**

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***Research methodology.*** *The methodological basis of the research are: system ana­lysis of the current process of optimal user interface design of mobile applications; the mechanism of semantic networks to play relationships between factors having impact on the quality of the technological process development; method of hierarchies analysis for factors ranking; research methods of multifactor processes and optimization.*

***Results.*** *An optimized mathematical model, presenting the influence of factors on the quality of the interface design has been developed based on the investigation of the user interface design process of mobile applications. This model allows an easy prioritization of factors during the interface design. Performed investigation emphasizes the necessity for developers to pay more attention to functionality and determination of optimal problems, relating to the efficiency of mobile applications.*

***Novelty.*** *The investigation is a new and very up-to-date trend in modern scientific researches. Through a modeling process designer can easly prioritize factors having impact on the user interface design of mobile applications.*

***Practical significance.*** *Obtained models allow to develop the relevant software for mobile devices, and simplify significantly the design process of user interfaces. Therefore, the results of the optimization will be used for further research in the field of user interfaces design for mobile applications for all kinds of devices.*