### ACADEMY OF ECONOMIC STUDIES IN BUCHAREST

**Doctoral School of Economic Informatics** 



### **DOCTORAL THESIS**

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Title of the doctoral thesis:

## EDUCATIONAL SYSTEMS BASED ON MOBILE SOLUTIONS

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# Council for Doctoral Studies Doctoral School of Economic Informatics

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**Bucharest**, 2024

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### **Summary**

This thesis examines the evolution of mobile and electronic solutions in education, with a special focus on the impact of the COVID-19 pandemic on the educational system. It explores how mobile applications have contributed to transforming educational processes, highlighting both their advantages and limitations. In the context of the pandemic, mobile and electronic learning became essential solutions for ensuring the continuity of education during a time marked by social distancing and the closure of schools and universities.

The work begins with a general analysis of the evolution of mobile devices and their impact across various fields, including education. Mobile learning applications have become important tools, supporting students and teachers during the pandemic by facilitating access to educational resources and enabling online courses.

A central aspect of the thesis is the comparison of mobile learning strategies and solutions implemented in various countries, including Romania, showcasing the progress in digitalizing education.

A survey conducted among 941 students from the Bucharest University of Economic Studies, within the Faculty of Cybernetics, Statistics, and Economic Informatics, highlights perceptions on the use of mobile solutions in education, emphasizing the importance of increasing investments in technology to improve the educational process. Based on the survey responses, the thesis also proposes a prototype mobile application tailored for universities.

The thesis concludes that mobile and electronic solutions have become essential elements in modern education, and their broader implementation could lead to significant improvements in the educational system, both in Romania and globally. The COVID-19 pandemic has underscored the need for digitalization, and in the long term, mobile solutions could help reduce dropout rates and make education more accessible to a larger number of students, including those from vulnerable backgrounds.

**Keywords:** mobile learning, e-learning, educational systems, mobile solutions, COVID-19 pandemic, university mobile solutions