

TITLE OF DIPLOMA THESIS

The use of Blockchain and Digital Twins technologies for the renovation of old buildings

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ABSTRACT

The galloping development of technology could not leave the construction sector, which is one of the most important for the country, unaffected. Thus, is very interesting whether the applications of “Blockchain” and “Digital Twins” technologies can contribute to the development of construction. The aim of this diplomatic work is to find scientific interest in the above technologies in the field of civil engineering, in particular in buildings in need of renovation, and whether they have been applied.

After searching and exporting the appropriate publications from the bibliographic databases and with the help of the VOSViewer software, which created bibliometric visualization networks, (bibliometric maps) leads to the linking of terms of interest in the preparation of the topic and from there to useful conclusions.

The following are definitions of various very important terms that are inextricably linked to the subject of the research, analyzed in the literature and naturally create strong links with the technologies “Blockchain” and “Digital Twins” in the bibliometric maps. The contribution of the available literature and visualization networks leads to the conclusion that there is scientific interest in the above-mentioned technologies in the construction industry and moreover that they have been applied in practice.

KEYWORDS

Blockchain, Digital Twins, Restoration of building, Building Information Modelling (BIM)